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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,384	04/20/2001	Guy-Ho Cha	6192.0215.AA	9243

7590

04/05/2004

McGuireWoods LLP
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EXAMINER

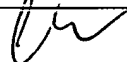
QI, ZHI QIANG

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/838,384	Applicant(s) CHA ET AL. 	
	Examiner Mike Qi	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-25 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and expressly the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,292,239 (Nagamura et al) in view of JP 11-133401 (Susumu et al) and US 5,815,227 (Lee).

Claim 1, Nagamura discloses (col.7, line 11 – col.8, line 67; Fig.1-13) that a liquid crystal display comprising:

- liquid crystal display panel (2), i.e., a display unit for displaying image;
- back light unit (BU) including a light source (4) generating a light; a light guide (the photo conductive plate 8) disposed on a side of the light source (4); and a light focusing element (lens sheets 5, 6 and diffusion plate 7) disposed on the light guide (8);
- resin frame (3) (a mold frame) having a receiving portion receiving the display unit (2), the light guide plate (8), and the light focusing element (5,6,7); and sidewalls defining the receiving portion;
- the resin frame (3) having a liquid crystal panel containing frame (17) (first frame) and a back light component containing frame (10) (second frame) (see col.7, lines 60 – col. 8, line 36).

Nagamura does not expressly disclose that the second frame (light source frame) has a groove formed on a side facing the light guiding plate for receiving the light source, and at least one of the sidewalls is formed on the second frame.

However, Susumu discloses (Figs.1-6) that a liquid crystal display device using two frames; one frame (first frame, such as supporting frame 24) is used for holding optical sheets such as the display panel (10), the light guiding plate (26) and the light focusing element (the optical films 28,30); another frame (lamp frame, such as holder 44 with protection cover 46) is used for receiving the light source (31). Although the holder (44) has a protection cover (46), but the holder (44) and the protection cover (46) also can be constituted as a frame and the function is for receiving the light source. Therefore, the light source (31) would be easily detachable and be easily substituted.

Still lacking limitation is such that the second frame (light source frame) having a groove formed on a side thereof facing the light guiding plate for receiving the light source, and at least one of the sidewalls is formed on the second frame.

However, Lee discloses (col.2, line 60 – col.4, line 12; Fig.4) that a lamp cover (125) functions as a light source frame (second frame), and the open side of the lamp cover (125) (i.e., a groove formed on the open side) is coupled with the light-inducing plate (105) (i.e., facing the light guide plate), and the lamp cover (125) as the second frame constituting a side wall to facing the light guide plate (105) for receiving the light source, and such that one of the sidewalls of the light guide receiving frame is formed on such lamp cover (125) (second frame).

Since such detachable light source frame would be easily substituted and the lamp exchange also is easy.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to use such two frames as claimed in claim 1 for achieving easily exchanging the light source.

Claim 2, Nagamura discloses (col.8, lines 42-47, Fig.1-2) that the light source (lamp 4) for radiating light is held by a holder holding portions (13a, 13b) to hold the rubber holders (15), i.e., the lamp supporting member inserted into both ends of the lamp, and the lamp must have electrical cable to connect the lamp and the power control circuit, and that would have been at least obvious.

Claim 3, Nagamura discloses (Col.7, lines 14-24, Fig.1) that a reflection plate (9) disposed under the light guiding plate (photoconductive plate 8).

Allowable Subject Matter

3. Claims 4-25 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither discloses nor teaches a liquid crystal display device comprising various elements as claimed, more specifically, as the following:

the side walls of the first frame are vertically formed at side peripheral portions of the bottom surface except for one side peripheral portion of the bottom surface, and a

supporting member of the first frame installed at the side peripheral portion of the bottom surface in which the side wall is not formed [claim 4];

the side walls of the first frame vertically formed at all side peripheral portions of the bottom surface except for one side peripheral portion of the bottom surface where the side wall is not formed, and the second frame being coupled with the first frame, such that the extremities of the second frame are within the periphery of the outer portions of the first frame [claim 10].

The closest reference Susumu discloses a structure of a liquid crystal comprising two frames, one frame for holding optical sheets such as LCD display panel, light guide plate and light focusing lens, another frame for holding the light source, so that the light source can be detachable. However, the structure is different from this application in which the light source holding frame (second frame) is coupled with the optical sheets holding frame (first frame) using one side of the first frame where no side wall in this side of the first frame.

Response to Arguments

5. Applicant's arguments filed on Sep.22, 2003 have been fully considered but they are not persuasive.

Applicant's **only** arguments are as follows:

1) None of the references discloses or suggest the claimed second frame (light source frame) has a groove on a side facing the light guiding plate for receiving the light source, and at least one of the sidewalls is formed on the second frame.

Examiner's responses to Applicant's **only** arguments are as follows:

1) The reference Nagamura discloses (col.7, line 11 – col.8, line 67; Fig.1-13) that the resin frame (3) (a mold frame) having a first frame (a liquid crystal panel containing frame 17) and a second frame (a back light component containing frame 10). The reference Susumu discloses (Figs.1-6) that a liquid crystal display device using two frames, one frame (first frame, such as supporting frame 24) is used for holding optical sheets such as the display panel (10), the light guiding plate (26) and the light focusing means (the optical films 28,30), another frame (lamp frame, such as holder 44 with protection cover 46) is used for receiving the light source (31). Although the holder (44) has a protection cover (46), but the holder (44) and the protective cover (46) also can be constituted as a frame and the function is for receiving the light source. The reference Lee shows (col.2, line 60 – col.4, line 12; Fig.4) that a lamp cover (125) functions as a light source frame (second frame) and the open side of the lamp cover (125) (i.e., a groove formed on the open side) is coupled with the light-inducing plate (105) (i.e., facing the light guide plate), and the lamp cover (125) as the second frame constituting a side wall to facing the light guide plate (105) for receiving the light source, and such that one of the sidewalls of the light guide receiving frame is formed on such lamp cover (125) (second frame).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (571) 272-2299. The examiner can normally be reached on M-T 8:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Qi
April 1, 2004



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER